Draft Meeting Notes
April 29, 1996 Levee and Channel Workgroup Meeting
Room 1142 of the Resources Building 0900

Voluntary Sign-in: Curt Schmutte, Gilbert Cosio, Dave Lawson, Alex Hildebrand, Margit Aramburu, Ed Littrell, Bill Forsythe, Kent Nelson, Niall McCarten, Frank Wernette, Ralph Torres, Mike Driller, Bruce Herbold, John Winther, Amy Rucker, Lynn O'Leary, Rich Reiner, Victor Pacheco, and Michael Norris

Curt convened the meeting and had the group introduce themselves. The agenda was reviewed and the draft minutes from the 3-29-96 meeting were approved with one revision at the request of Alex. Alex clarified a point he made at the 3-29-96 meeting regarding a proposed Emergency Response Program for Delta levees.

Curt discussed the CALFED process and how there are two official workgroups dealing with Ecosystem Restoration and Finance. The Levee and Channel Workgroup is not an official BDAC workgroup.

Margit asked Steve Yaeger if CALFED was going to prepare a habitat master plan and the answer was yes. Curt said that many of the habitat ideas that the Levee and Channel Workgroup are talking about are already being considered in CALFED alternatives and it would be foolish to get ahead of the CALFED process. Rather, Curt says we should let CALFED take the lead. Alex asked about the "criteria for achieving the goals desired". Alex said he was not suggesting we get ahead of the CALFED process but many BDAC members were wondering about such things as balance, goals, etc. for habitat restoration. Bruce assured Alex that the things he was concerned about were being discussed in meetings.

Ed asked if we were still working off the old Delta Native Fisheries Recovery Plan from about 3 years ago and Margit said a new one was due out soon. Bruce said the new plan will still not contain a lot of specifics.

Ralph gave a seismic presentation and a topic agenda handout (attached). Ralph discussed prior studies that were done such as a 1987 Corps study. Lynn, who participated in that study, noted the Corps study didn't say the liquefaction potential was high in the Delta but rather that the liquefaction potential was high in certain areas of the Delta. Ralph concurred.

Ralph went through the presentation item by item as listed on the handout. He discussed the Phase 1 report that was completed. One of Ralph's mounted charts showed levels of liquefaction and Margit asked about what key factors went into the classification of "low," "low to moderate," and "moderately high" and Ralph said it was the degree of shaking. Ralph said the classification was not meant to predict levee failure but rather how much damage might occur.

Ralph discussed the Phase 2 work involving the installation of surface and subsurface instruments. Charts were shown that showed instruments presently in place and those planned for installation. Ralph said a board of consulting professors from UC Davis and UC Berkeley

D-028207

review the work of his group and the consultants comments are considered before any material is published.

Several people liked the presentation by Ralph and had further questions. Alex asked about the liquefaction potential of clays versus sands and Ralph said the potential was higher for sands. Alex also asked about the buried walls that are installed along levees in the Sacramento area and Ralph said the walls are not real strong but are designed to reduce seepage so they would be an improvement from that standpoint.

John asked about the earthquakes that are published regularly in the Chronicle and if that data is collected by Ralph's group. Ralph said no and that the earthquakes that are reported in the paper on a regular basis would be ones less than magnitude 5 and they would have an insignificant effect in the Delta resulting in less than 0.15g.

Margit asked about the earthquake diagram in the publication "What's shaking in the Delta" and Curt also discussed the Winters-Davis earthquake of the 1860s and where it might fall on the diagram.

Ralph ended his presentation and he and his assistant, Mike Driller, left the meeting.

Curt discussed draft language in Assembly Bill (AB) 360 in so far as it included language including project levees in the primary zone in the Delta Levee Subventions Program. Ed noted a problem where the US Fish and Wildlife Service doesn't like attached berms such as the ones on Canal Ranch and something like that would have to be resolved in the future. Curt noted that the CALFED process could bring various agencies together to help resolve conflicts. Gilbert noted that draft Senate Bill (SB) 900 is levee driven and habitat improvements need to be incorporated into levee improvements. Ed asked if Curt would take back to the SB 900 group his concerns about the Fish and Wildlife Service comments on proposed levee projects and Curt said he would.

Curt said he attended the Finance Work Group meeting but not the Ecosystem Restoration Work Group meeting. Frank and Bruce attended the Ecosystem Restoration Work Group meeting and Frank said he was impressed by the side-by-side illustrations of channel island erosion of Delta islands comparing photos from the 1930s to photos from the present.

Curt and Alex discussed sediment load deposition in the Delta. Curt said we should study how the sediment is deposited and we should consider building habitat in those areas.

The group discussed habitat restoration techniques although it was not directly related to what was said at the Ecosystem Restoration Work Group meeting since most in the group did not attend that meeting. Curt discussed the possibility of ultimately having some change in the Delta system where deposition and erosion were occurring in a favorable manner. John noted that today's meeting was the third in a row that he has attended where people have brainstormed habitat techniques. John said that the figures of $8 billion given in the CALFED reports for habitat restoration aren't likely to occur. If everyone tries to get everything they want, then

nothing will occur. Something will happen if a group assembles and develops an economically viable solution for habitat restoration.

Curt summarized the Finance Work Group meeting he attended. Curt said the alternatives range from $4 billion to $12 billion capital costs not including O&M. Costs are plus or minus 30%. Costs could be spread over 20 years. Curt discussed the "contingent valuation process" which is a survey process to come up with a polled worth among a group. Curt finished the topic by noting he heard a comment from economists that biologists need to hang a number on costs of improvements so that the economists can move on.

The group reviewed the Levee Plan. Margit noted that Steamboat Slough is a large recreation area and it may conflict with habitat objectives. Curt and Margit noted that some of the habitat ideas they like are in Alternative E of the CALFED report. Alex noted that there are some good habitat ideas in some CALFED alternatives but not in others and there needs to be good rationale for not including good habitat ideas in all of the alternatives. Curt discussed the "purple band" on the wall diagram for Special Flood Control and Habitat Projects. Curt said the band extends to the Cosumnes River Preserve and that the scheme fits in with future levee improvements like waterside berms and setback levees. Alex expressed concern about reducing flow capacity with setback levees and Curt noted the "purple band" is actually two shades of purple denoting waterside berms in some areas and setback levees in others.

Curt began discussing the prioritization process. A levee mileage spreadsheet that Michael prepared was handed out to the group and Michael discussed what it meant as far as the "min," "mod," and "max" level of levee improvements. Michael said it was a first cut at estimating miles of levee improvements and he didn't know if it would remain valid if the Levee and Channel Workgroup decide on an alternate way of doing it.

Curt discussed the prioritization ranking scheme on the wall display. One method gives each island a score depending on the various features that island may possess. That method is "bottom-up" according to Curt. An alternate method is "top-down" where an objective survey would be taken among Delta interests of what they felt were the most important islands and then a group was assembled to rank them based on that input. Margit wondered about a problem with "who gets to vote" and there have been comments in the past that the Delta votes are top heavy in favor of water interests. Margit didn't like either the "bottom-up" or "top-down" approach. Curt said a hybrid of the two approaches is also possible where one group came up with 5 or 10 islands using the "top-down" method and then another group convened to rank those 5 or 10 using the "bottom-up" method.

The next meeting of the Levee Issues Work Group was not immediately scheduled. Curt would call people individually and would work out a meeting based on everyone's schedule.

levee429.min

DRAFT

CALFED Bay-Delta Program
System Integrity Workplan

Purpose:

The purpose of this workplan is to develop a detailed description of the Delta Long-Term Levee Improvement Plan including elements of levee maintenance and improvement, subsidence control, cost sharing (ability to pay)procedures, beneficial reuse of dredge material, habitat banking, seismic susceptibility, emergency response, and continued funding for the System Integrity Common Program.

This effort is enhancing the information developed by the Levee and Channel Technical Advisory Committee of the Bay Delta Oversight Council and continues the coordination (linkage) between levees, fisheries, and terrestrial issues.

Approach:

The Department of Water Resources is currently leading an effort to define this program with input from various interests including Delta residents, State and federal agencies, and Delta agencies such as local reclamation districts and the Delta Protection Commission. This effort in proposing refined definitions of the elements of the overall plan is currently being coordinated by Curt Schmutte through the Levee and Channel Technical Team. CALFED Bay-Delta Program staff is coordinating with this and other groups during the alternative development, refinement and evaluation process by monitoring, reviewing, and providing input to the proposed plan.

It is proposed that the Levee and Channel Technical Team continue in the development and refinement of the Delta Long-Term Levee Improvement Plan in coordination with the various interests identified above as well as other groups that are involved in related activities. Actions to improve system integrity will be developed using a "working team approach" which combines CALFED staff and Levee and Channel planning experts from the CALFED agencies with a consulting team acting as an "extension of staff". The agency experts will need to be physically located with CALFED team to make this approach effective. This approach will take full advantage of the expertise available within the agencies while making use of the resources of the consulting team.

The elements necessary to address the issues relevant to implementing the Delta Long-Term Levee Improvement Plan include the following:

- Formation of technical sub-teams to address specific issues related to levee habitat, land subsidence, beneficial reuse of dredge material, and seismic susceptibility.

- Priorities and actions within the Special Habitat Improvements and Flood Control Projects Program will be developed. Important aspects of this element will include identification and prioritization of flood control needs and levee habitat needs providing the highest public benefits. In addition, islands that are recognized as being essential for

protection of public benefits, but are at increased risk due to greater seismic susceptibility, will receive higher priority to ensure protection of those public benefits. Habitat projects will be defined to improve levee habitat corridors in coordination with the BDAC Ecosystem Workgroup and the Agency Ecosystem Review Team needs.

- Subsidence control plan of action will emphasize implementation of subsidence control reduction based on research results into "capping" and other techniques which maximize accretion. Utilizing GIS technology, parameters that have been found through ongoing research to effect subsidence (organic content, depth of peat, etc.) will be mapped to aid land use planning decisions for subsidence control.

- Cost sharing procedures (ability to pay) will include a comprehensive study to identify each local agency's ability to cost share for flood control projects. In addition, other beneficiaries (e.g. wildlife habitat, recreational developments, highways and railroads, natural gas fields, utility lines, major aqueducts, other public developments, etc.) will be investigated to quantify the benefits they receive. Also, applicable federal programs will be investigated.

- Levee habitat banking policies and procedures will be developed. Both the State (1993) and Federal government (1995) have drafted guidance for the protection of wetland habitat through the use of wetland mitigation banking. Habitat banking for other habitat types on levees may be dealt with similarly. These banking guidelines will be reviewed for their applicability to a CALFED levee habitat banking program and will be integrated into CALFED's larger, regional habitat management plan for the Delta. Substantial coordination with DFG and federal agency staff will be required to develop a comprehensive mitigation bank that will satisfy the potential mitigation needs for wetlands, uplands, aquatic ecosystems and listed plant and animal species on levees.

- Beneficial reuse policies and procedures will be developed. With the identified need for suitable material for levee maintenance and repair, the technical team will investigate creation of in-stream sediment traps that can be "harvested" on frequent intervals, propose recommendations for legislative action to promote beneficial reuse of dredge material, and propose measures to streamline the permitting of disposal of sediment from brackish sources. These efforts will be coordinated closely with the Regional Water Quality Control Board and the San Francisco Bay Long Term Management Strategy (LTMS) program for the upland utilization of in-Bay dredge material.

- A comprehensive Delta levee emergency response plan will be developed in coordination with existing law, State, federal, and local agencies to utilize the appropriate available resources to prevent the occurrence and severity of flood threatening incidents. Included in this plan will be standardized contracts for emergency levee work, criteria for eligible levee work, definition of an emergency levee event, establishment of a multi-agency response team, documentation requirements to streamline reimbursements, and stages of emergency response.

- Delta levee seismic susceptibility will be explored by continuing research that began with the Department of Water Resources' Phase I Delta Seismic investigation. Since there are a great many unknowns regarding the dynamic properties of the peaty foundation layers which commonly exist beneath the levee system, the continued research will attempt to reduce the major uncertainties by: installing strong-motion accelerometers at three to four levee sites in the Delta; creating a geologic model for deeper soil deposits; field and laboratory testing to better determine the static and dynamic properties of organic soils; field and laboratory testing to better determine liquefaction potential; and investigate the potential activity of the Coast Range-Sierra /Nevada Boundary Zone. These efforts will be closely coordinated with the USGS, UCD, and interested stakeholders.

A proposed schedule for defining, reviewing, and refining these elements in coordination with the various interests is attached.

leveewk4.pl